



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,252	10/14/2003	Douglas G. Balazich	POU920030156US1	3991
46369 7590 01/25/2008 HESLIN ROTHENBERG FARLEY & MESITI P.C. 5 COLUMBIA CIRCLE ALBANY, NY 12203			EXAMINER PARK, JUNG H	
			ART UNIT 2619	PAPER NUMBER
			MAIL DATE 01/25/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/685,252	Applicant(s) BALAZICH ET AL.	
	Examiner Jung Park	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-23 and 25-30 is/are rejected.
- 7) ☒ Claim(s) 12 and 24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1-11, 13-23, and 25-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Yang et al. (US 2003/0233503, "Yang").

Regarding claim 1, Yang discloses a method of managing request groups of a communications environment, the method comprising:

- obtaining a plurality of request groups (multiple memory access requests from the multiple processors which are grouped together, see ¶.9 and ¶.11); and
- tracking, by hardware of the communications environment (relationship between processors, see fig.9 and ¶.53) and, a dependency between at least multiple request groups of the plurality of request groups (dependency between leading processors and trailing processors, see ¶.53).

Regarding claim 2, Yang discloses, "wherein the obtaining comprises grouping, by a communications processor of the communications environment (fig.9 and ¶.11), a plurality of requests for a plurality of tasks into the plurality of request groups (¶.9 and ¶.11)."

Regarding claim 3, Yang discloses, "further comprising sending a response for a request group of the at least multiple request groups to a communications processor of the communications environment in an order indicated by the tracking (§.9 and §.11)."

Regarding claim 4, Yang discloses, "wherein the communications processor is alleviated from determining order of responses (§.53)."

Regarding claim 5, Yang discloses, "wherein the sending is facilitated by a memory response unit coupled to the communications processor, the memory response unit receiving the response from main memory (fig.4 & 9)."

Regarding claim 6, Yang discloses, "wherein the response is for at least one request of the request group, the at least one request being issued from the communications processor to a memory request unit coupled thereto, the memory request unit facilitating the sending of the at least one request to main memory (fig.9, §.9 and §.10)."

Regarding claim 7, Yang discloses, "wherein the dependency corresponds to an order in which one or more requests of the at least multiple request groups were issued from a communications processor of the communications environment (order of data, see §.9 and §.54)."

Regarding claim 8, Yang discloses, "wherein the hardware comprises a state data structure comprising at least one of a predecessor indicator specifying whether a

request group of the at least multiple request groups has a predecessor and a successor indicator specifying whether the request group has a successor (leading and tailing processors, see ¶.53)."

Regarding claim 9, Yang discloses, "wherein the state data structure is indexed by a task id of the request group (group ID, see fig.9)."

Regarding claim 10, Yang discloses, "wherein the task id used to index into the state data structure is obtained from another data structure indexed by a tag, the tag identifying a read memory transaction corresponding to a request of the request group (tag marking unit and read, see fig.4 and ¶.54)."

Regarding claim 11, Yang discloses, "further comprising: determining, based on the tracking, that a response for a request group of the plurality of request groups is to be sent to a communications processor of the communications environment (fig.9 and ¶.54); checking, in response to being able to send the response, whether there are one or more successor request groups of the request group; and sending to the communications processor one or more responses for the one or more successor request groups, in response to the checking indicating there are one or more successor request groups (¶.53)."

Regarding claim 13, Yang discloses, "wherein the determining comprises ensuring that responses of any predecessor request groups of the request group have been sent to the communications processor (¶.53)."

Regarding claim 14, it is a system claim corresponding to the method claim 1 and is therefore rejected for the similar reasons set forth in the rejection of claim 1.

Regarding claims 15-23 and 25, they are claims corresponding to claims 1-3, 5-11, and 13, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claim 26, it is a claim corresponding to claim 1 and is therefore rejected for the similar reasons set forth in the rejection of claim 1.

Regarding claim 27, it is a claim corresponding to claims 5 and 3 and is therefore rejected for the similar reasons set forth in the rejection of claims 5 and 3.

Regarding claims 28-30, they are claims corresponding to claims 6, 8, and 11, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Allowable Subject Matter

3. Claims 12 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP
Jung Park
Patent Examiner

EDAN . ORGAD
SUPERVISORY PATENT EXAMINER

Edan Orgad